MEMORANDUM

REFER		NOTED	
TO	DATE	BY	DATE
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O: File
ROM: C. A. Smith
ATE: March 23, 1967
UBJECT: WORLD TRADE CENTER - Contract WTC 420.00 - Exterior Skin - Coordination Meeting held on March 17, 1967

EFERENCE:

OPY TO: Messrs. Barton, Crosley, Davis (ALCOA); Mr. Collier (SPARKS); Messrs. Endler, Palant (TISHMAN); Messrs. Goz, Levy, Mopti, Sullivan, Tandy, Tessler, Tozzoli, Werneke

A coordination meeting was held regarding Contract WTC 420.00 - Exterior Skin, on Friday, March 17, 1967. The following representatives attended:

ALCOA	SPARKS	TISHMAN	WTC
R. Barton	N. Collier	C. Palant	P. Goz
D. Crosley			C. Smith
J. Davis			D. Tandy
			H. Tessler

1. Mr. Barton presented a detailed written description of proposed contract procedures including the following:

   a. Erection Schedule

   b. Procedures for Maintaining Erection Tolerances

   c. Safety Program

   d. Quality Control a Job

   e. Floor Space Requirements and Truck Movement at Site

   f. Bar Chart Schedule for Mark-up Test and Drawing Submission

PLAINTIFF'S EXHIBIT PX-464

2. Mr. Davis reviewed ALCOA's progress to date as follows:

   a. A wind tunnel test was completed at the University of Wichita on March 16, 1967. The results of this test should be available by April 1, 1967.

   b. ALCOA is preparing to let the contract for the test stand and steel for test wall.

   c. ALCOA should be ready to start testing the window wall in June. Drawings will be submitted by April. All testing should be completed by September, 1967

   d. ALCOA requires the latest structural drawings for lower tower

9th floor - Tower A and everything below the 9th floor - Tower B). (Les Feld estimates 2 to 3 weeks to complete).

3. ALCOA was advised of a possible change from welded to bolted connection. Mr. Tessler stated that this change would cause no change in the exterior profile of the structure.

4. Mr. Tessler asked whether the glass manufacturer had been selected yet and said there are some problems in this area that involve further discussions. Mr. Barton advised that ALCOA has not settled on a contract yet, but will inform the WTC when known. Mr. Tessler requested that ALCOA forward a list of the prime bidders for the work.

5. Mr. Tessler questioned how many final wall pieces, other than column covers, would be available for testing by November to December, 1967. As requested by Mr. Tessler, Mr. Davis said he would get in touch with Professor Sakhnovsky and WTC on availability dates.

6. The erection schedule was discussed. Mr. Collier pointed out that 9 floors of completed concrete had been allowed as a safety factor in the establishment and coordination of axis lines for skin erection. This is not acceptable for WTC construction, and Mr. Collier was advised that we want to stay within 3 floors of concrete.

7. The hoisting of materials was discussed as follows:

   a. Mass hoisting of materials is scheduled for after normal working hours. However, Mr. Collier pointed out that some hoisting of miscellaneous equipment and materials would be required during the normal working day.

   b. Mr. Barton repeated ALCOA's request at the February 3, 1967 meeting for the full area of elevator cabs during the hoisting of materials. ALCOA required a maximum clearance of 13' to 13'1" depth of elevator. Mr. Palant pointed out that we have been working with OTIS on temporary elevatoring and he believes this problem can be resolved satisfactorily. Mr. Barton requested a revised sketch of hoist dimensions showing maximum areas and clearances. Mr. Palant suggested that it may be possible to remove the elevator ceiling during non-working hours to hoist "oversize" units. He suggested that ALCOA hold to a 10' height clearance on the hoist.

   c. Mr. Collier said SPARKS is contemplating the use of a trolley beam system for unloading materials in an assigned area or the working platform outside the tower. It was agreed that a meeting will be scheduled with TISHMAN, ALCOA, KOCH, and WTC to discuss the coordination of working areas on the platform level between steel and exterior skin contractors.

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8. ALCOA's erection schedule indicates the commencement of establishment of working lines and grades on April 15, 1969. Mr. Smith advised that based on preliminary steel erection schedules, steel would be erected to the 20th or 21st floors, concreted to the 13th or 14th floors in Tower A, by April 15, 1969.

9. ALCOA has included temporary power requirements for this contract in the procedures submitted at this meeting. The big power requirement will be for the fireproofing. Mr. Palant questioned the status of a spraying rig, and Mr. Barton advised this is progressing satisfactorily.

10. A discussion followed on the restrictions that might be imposed on other trades such as the delay in installation of risers along the tower perimeter to permit unrestricted use of the drilling rig for anchors and installation of column covers with a fork-lift type machine. It was pointed out that we see problems with this, since some secondary water lines will have been installed. This item requires further review and coordination.

11. Mr. Davis requested data on the induction units and enclosures (Mr. Davis was referred to Mr. Di Paolo immediately following this meeting.)

12. Mr. Barton requested that 15,000 s.f. of storage space be made available on the pier (Pier 13.) This question will be referred to Mr. Werneke.

It was agreed that both TISHMAN and the WTC will review the schedules and procedures submitted by ALCOA at the meeting. Within one (1) week, this review will be completed to the extent that written comments will be returned to ALCOA for study. A meeting was tentatively scheduled for the week of March 27, 1967 to complete review of all comments. When agreement is obtained on the general procedures for erection, ALCOA will proceed with the development of a detail CPM schedule.

Immediately after the meeting adjourned, Mr. Monti arrived and requested information from Messrs. Barton, Crosley, Davis and Collier regarding the installation of fireproofing (spray-on type). Mr. Monti requested that ALCOA investigate the effects of freezing weather as to the minimum temperature that can be tolerated. Mr. Barton said he understood this to be 30 degrees. Mr. Monti further suggested that ALCOA look at climatical data for this area determining the number of days that freezing temperatures will cause a shut down of spraying (fireproofing) operations.

C. A. Smith

CAS/DJT/cs

A-B-C-D-E-F
1-2-3-4-5A thru
6-7-8-9-10A thru